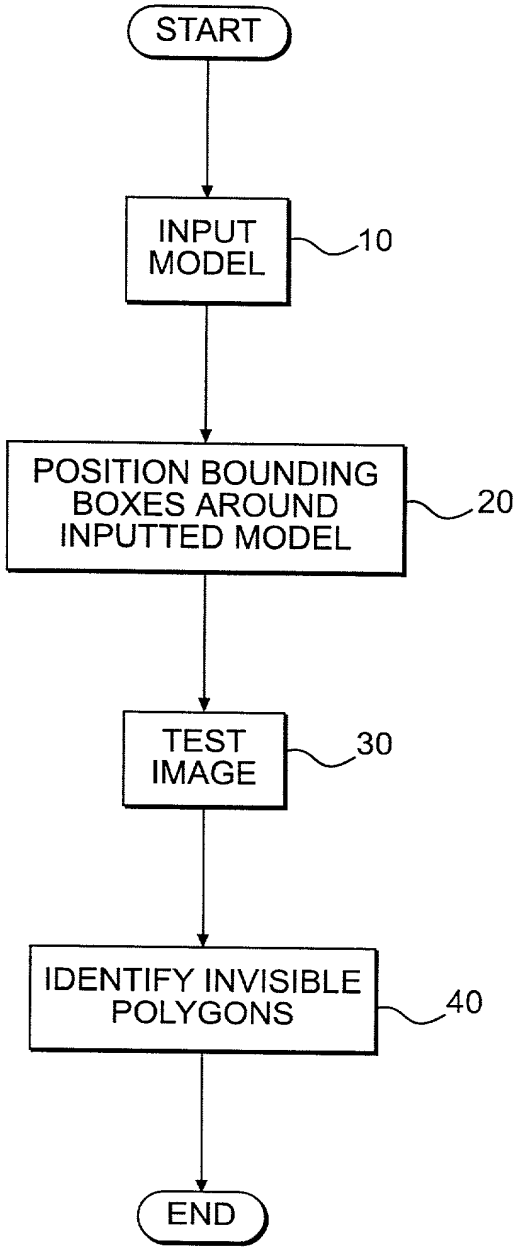

START
INPUT MODEL
10
POSITION BOUNDING BOXES AROUND INPUTTED MODEL
20
TEST IMAGE
30
IDENTIFY INVISIBLE POLYGONS
40
END

FIG. 1

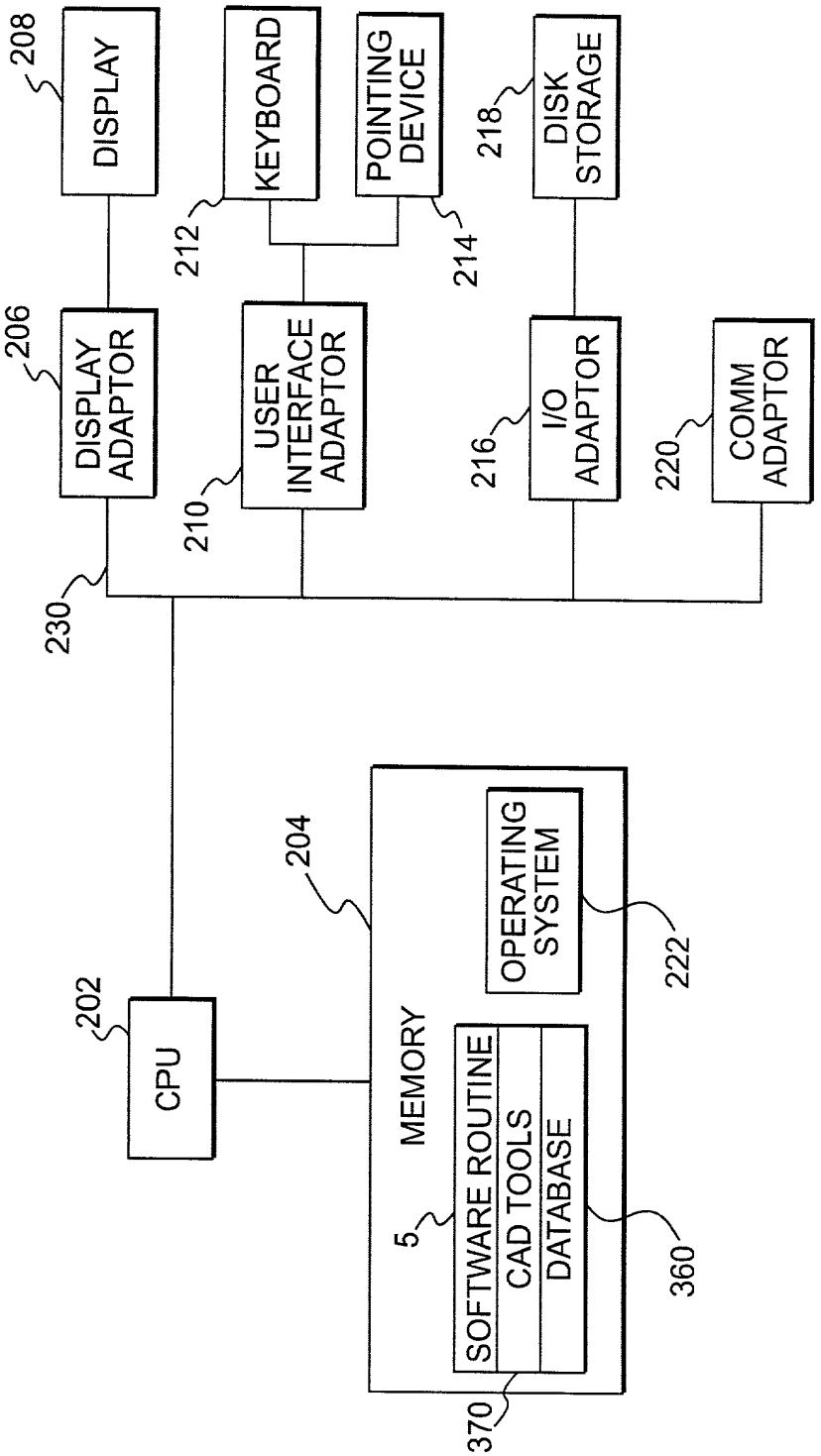
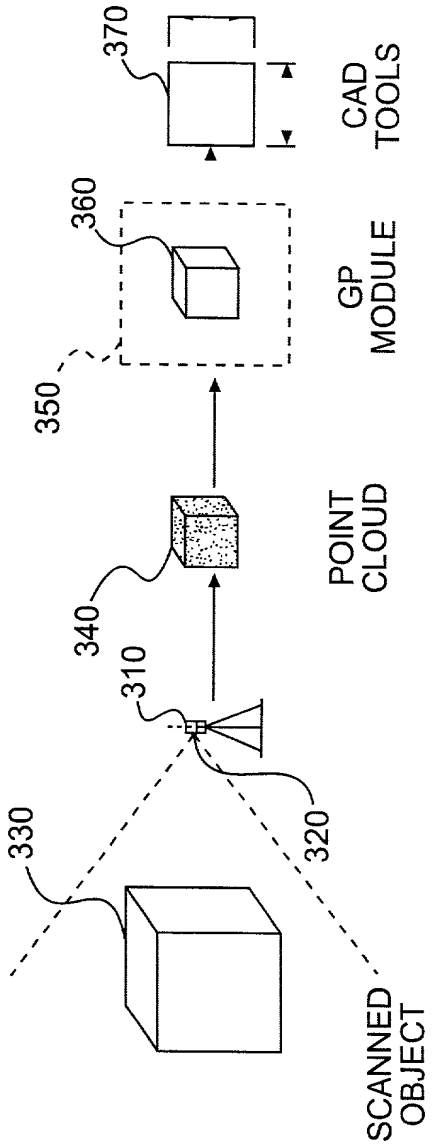
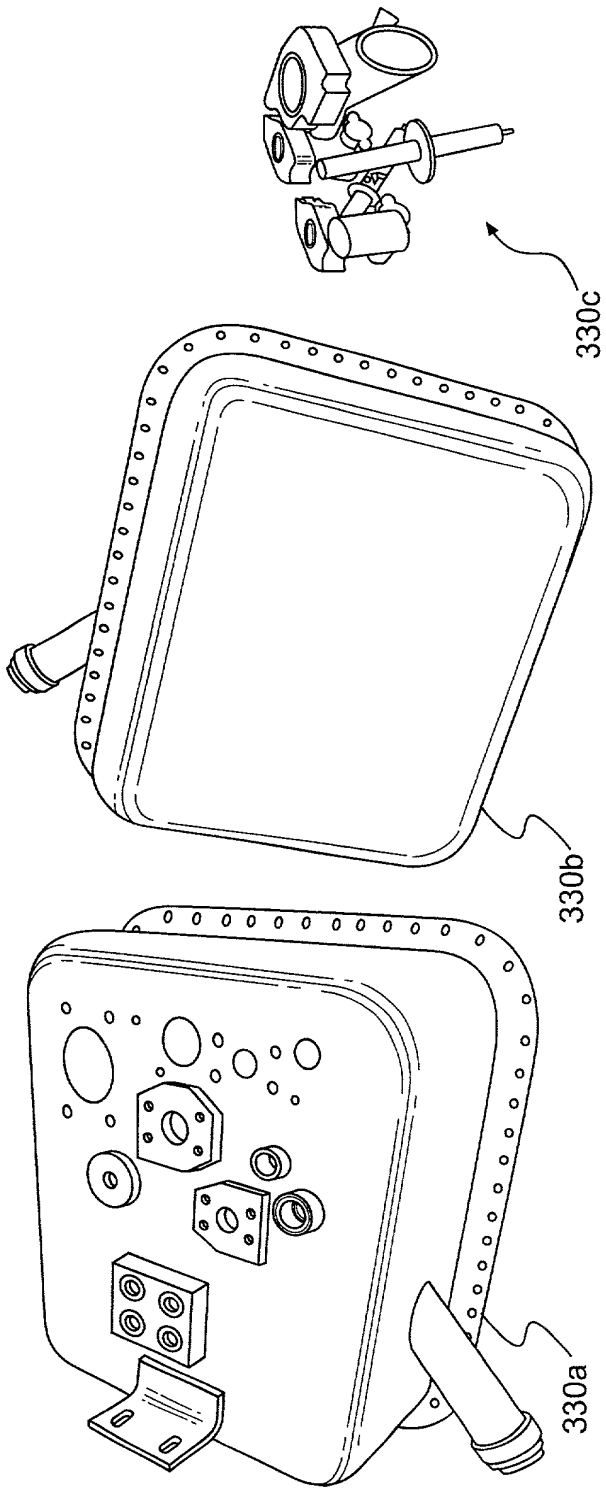

200
208
DISPLAY
206
DISPLAY ADAPTOR
212
KEYBOARD
214
POINTING DEVICE
218
DISK STORAGE
210
USER INTERFACE ADAPTOR
216
I/O ADAPTOR
220
COMM ADAPTOR
230
202
CPU
204
MEMORY
5
SOFTWARE ROUTINE
CAD TOOLS
DATABASE
370
360
OPERATING SYSTEM
222

FIG. 2


370
CAD TOOLS
360
GP MODULE
350
POINT CLOUD
340
310
330
320
SCANNED OBJECT

300

FIG. 3



330

FIG. 4

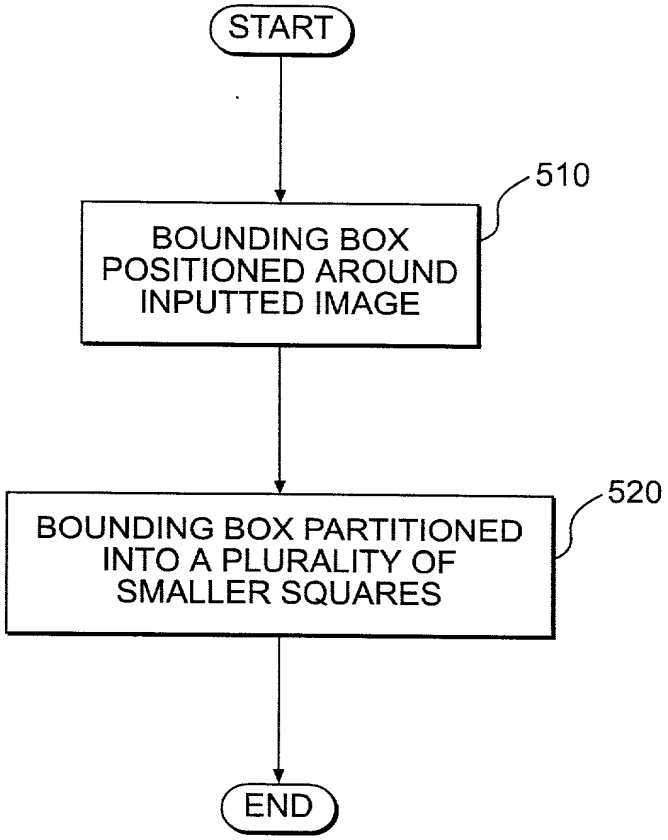

START
510
BOUNDING BOX POSITIONED AROUND INPUTTED IMAGE
520
BOUNDING BOX PARTITIONED INTO A PLURALITY OF SMALLER SQUARES
END

FIG. 5

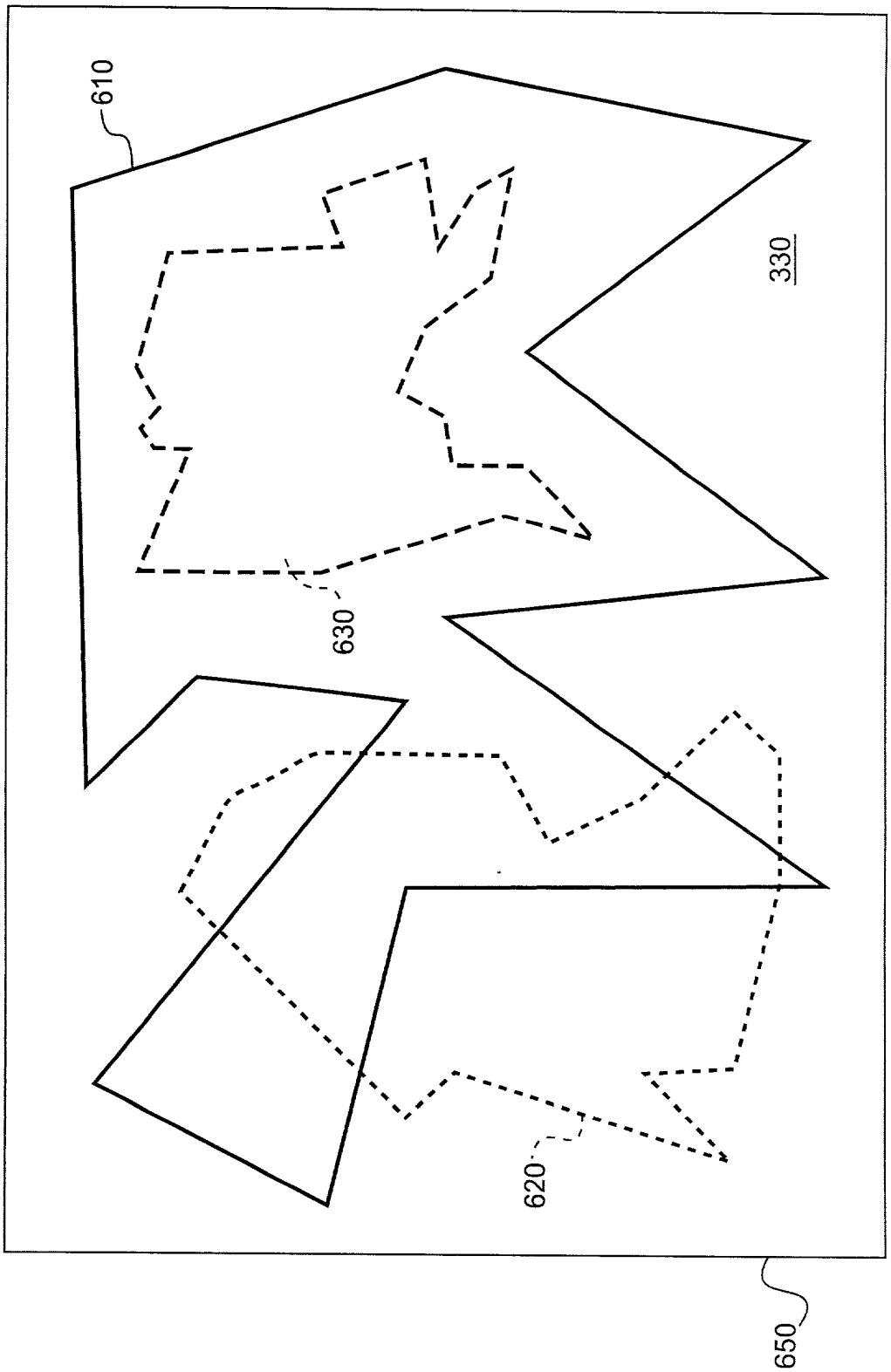


FIG. 6

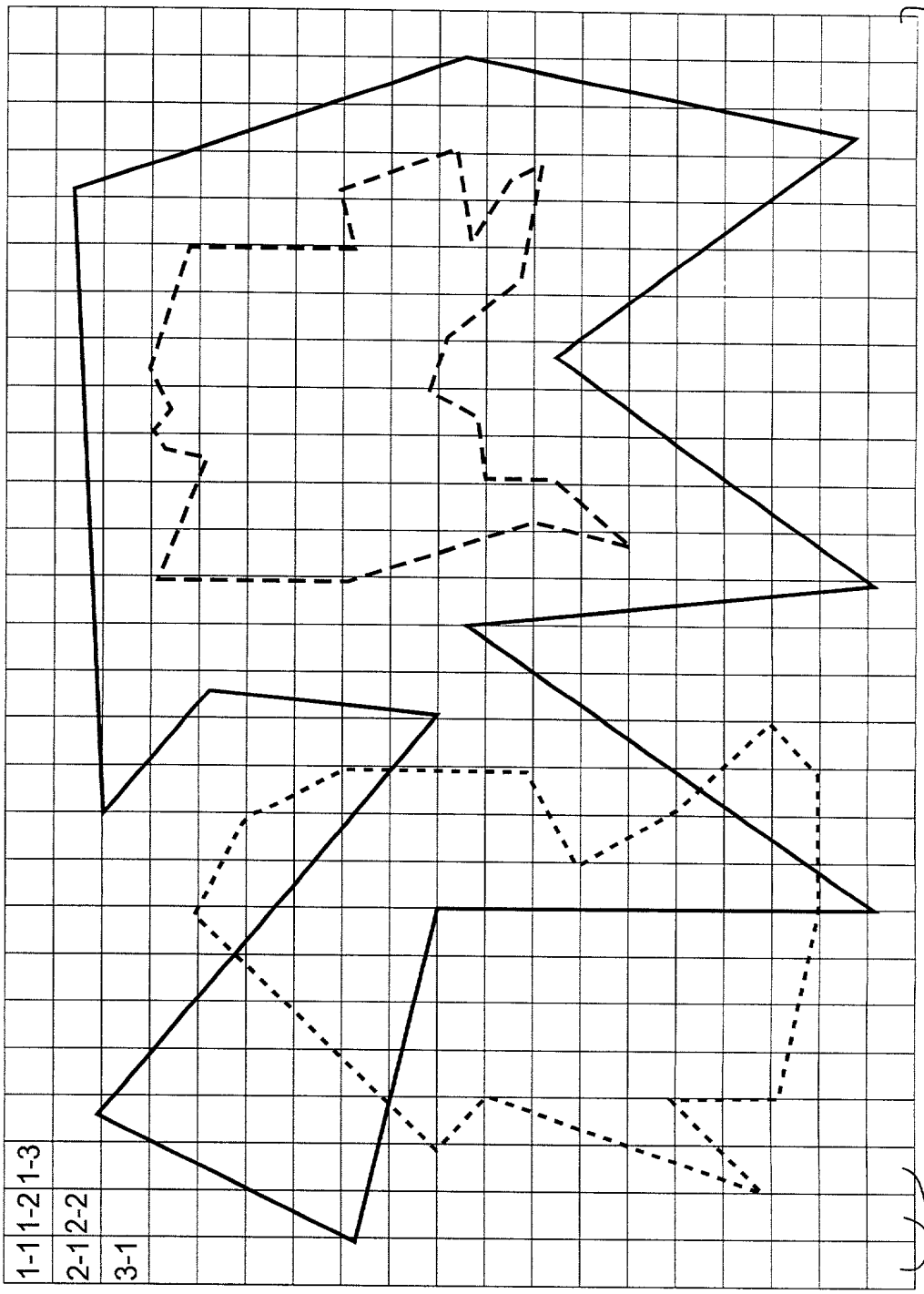


FIG. 7

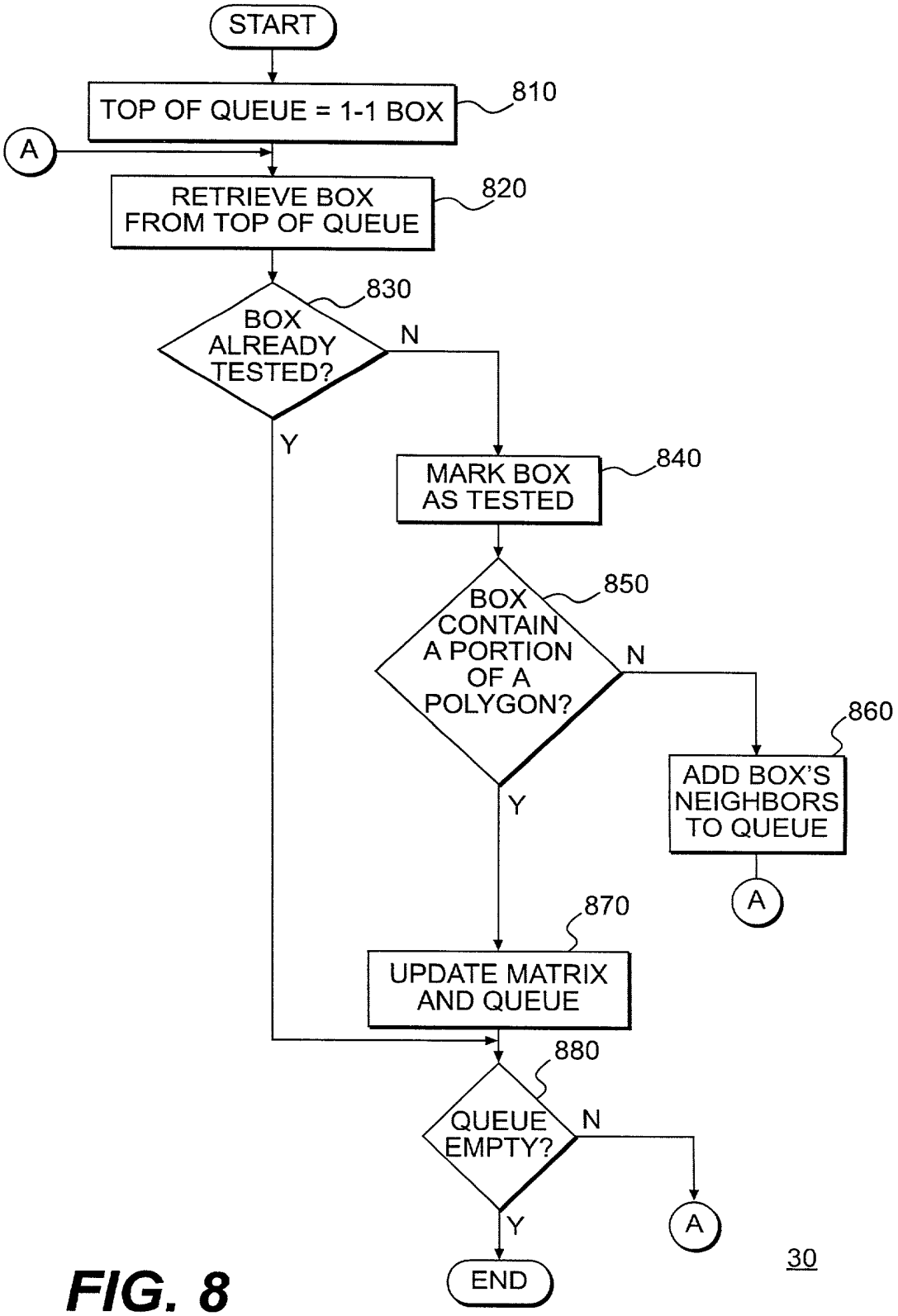
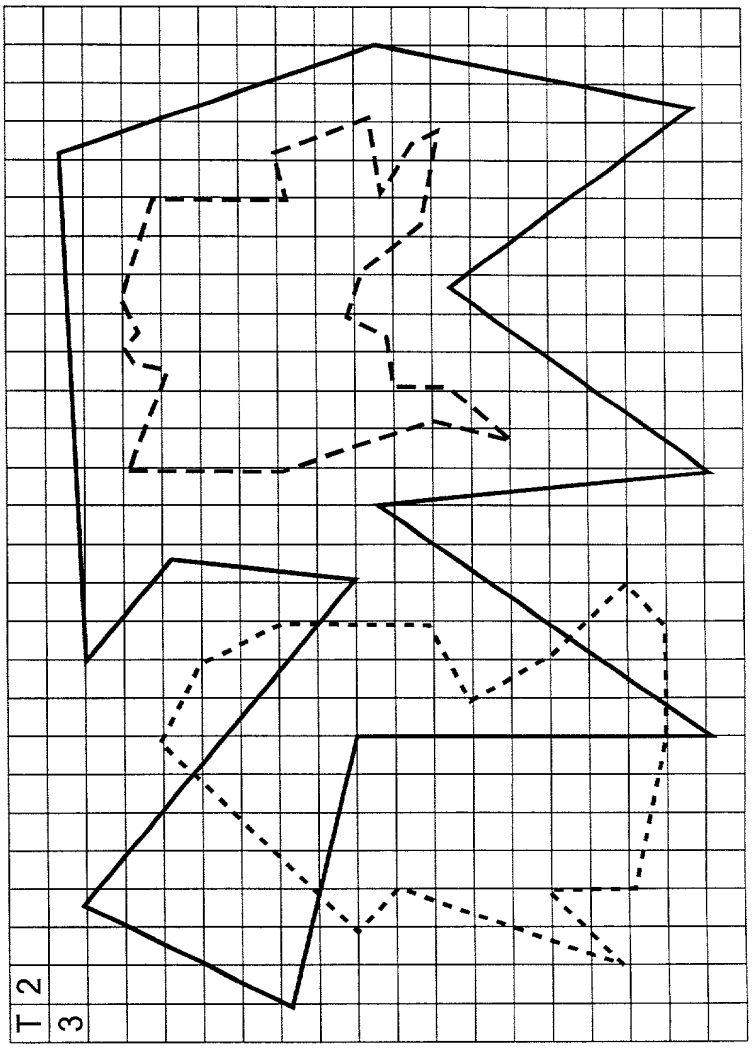
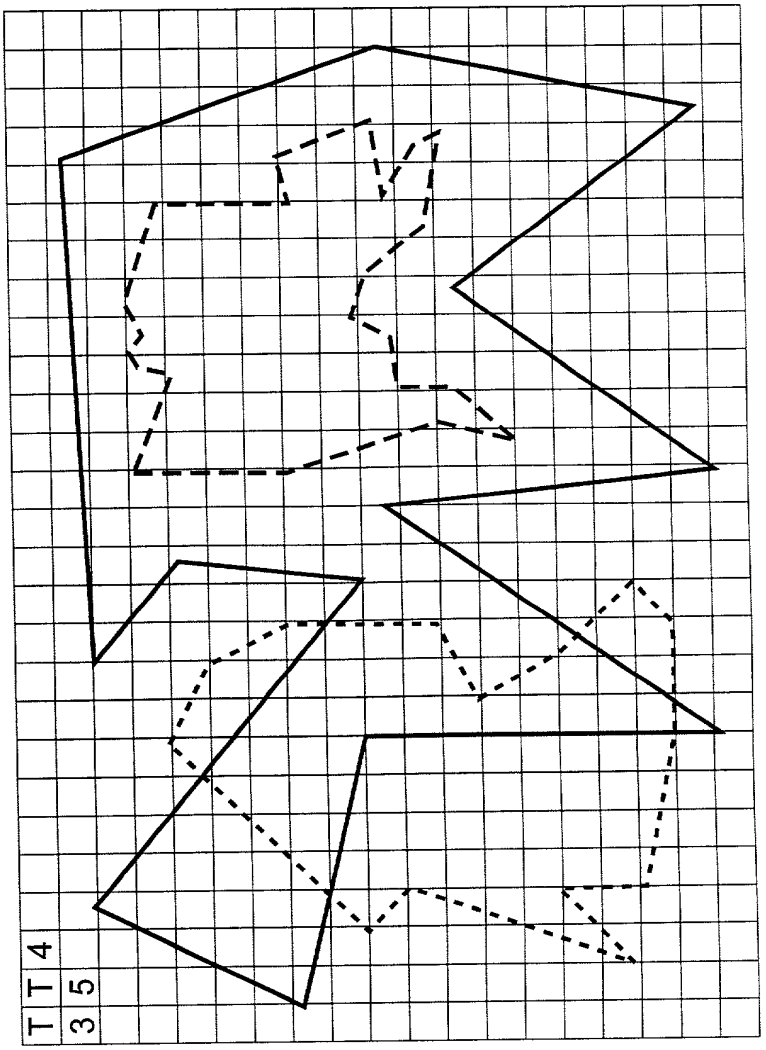

START
TOP OF QUEUE = 1-1 BOX
810
A
RETRIEVE BOX FROM TOP OF QUEUE
820
BOX ALREADY TESTED?
830
N
Y
MARK BOX AS TESTED
840
BOX CONTAIN A PORTION OF A POLYGON?
850
N
Y
ADD BOX'S NEIGHBORS TO QUEUE
860
A
UPDATE MATRIX AND QUEUE
870
QUEUE EMPTY?
880
N
Y
A
END
30

FIG. 8



TESTING QUEUE		
1	1-1	TESTED
2	1-2	
3	2-1	
4		
5		
⋮		

FIG. 9



TESTING QUEUE	
1	1-1 TESTED
2	1-2 TESTED
3	2-1
4	1-3
5	2-2
⋮	

FIG. 10

TESTING QUEUE		
17	2-5	TESTED
18	3-4	POLYGON
19	4-3	
20	5-2	
21	6-1	
22	1-7	
23	2-6	
24	3-5	

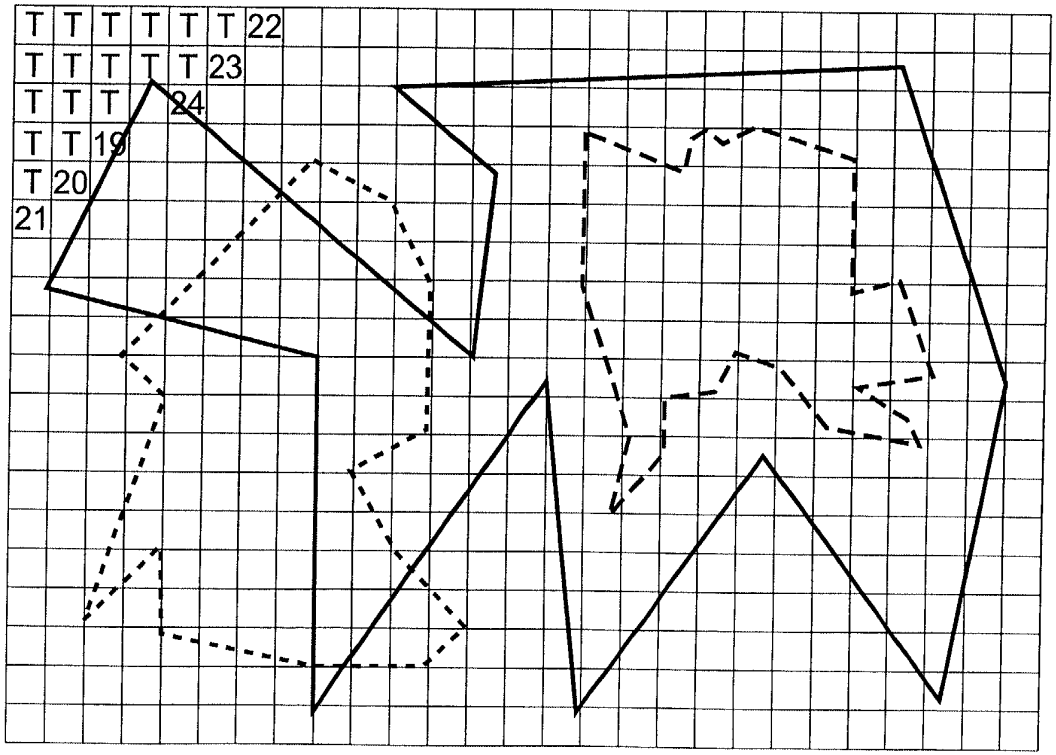


FIG. 11

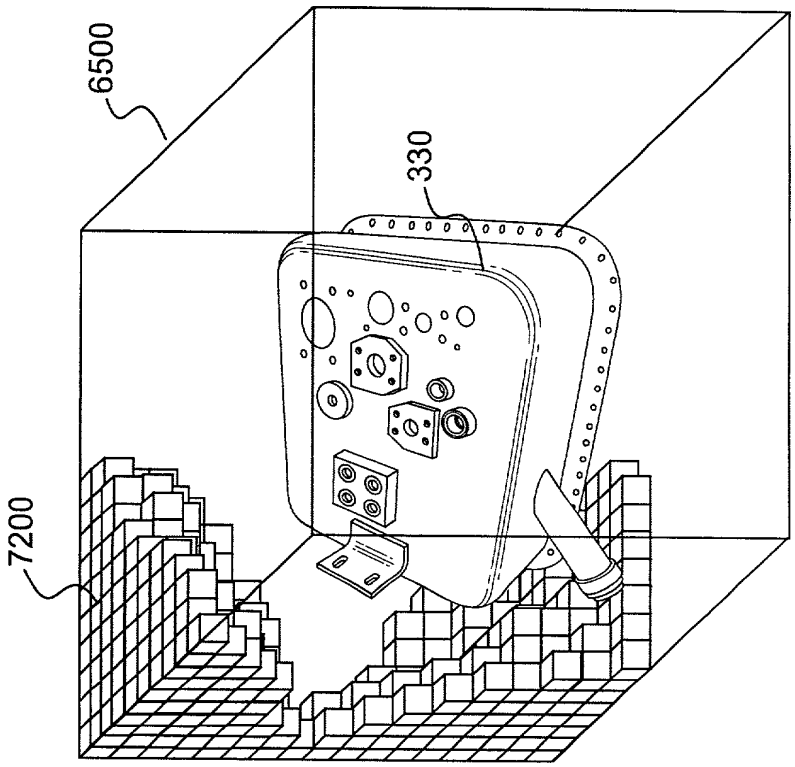


FIG. 12